

Notice of Allowability

Application No.

10/727,297

Examiner

Anatoly Vortman

Applicant(s)

STIEKEL, JAN J.

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed on 12/03/03.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 12/3/03 & 4/4/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

**ANATOLY VORTMAN
PRIMARY EXAMINER**

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to Applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claim 1, line 24 of the claim, [a] before "respective" has been replaced with --the--, since the limitation has been previously set forth in the claim, line 25 of the claim, --member-- has been inserted following "spring clip" in order to provide proper antecedent basis for "spring clip member" in the following dependent claims;

Claim 3, line 3 of the claim [a] has been replaced with --the-- before "respective lid part tab", since the limitations have been previously set forth in the claims;

Claim 4, line 3 of the claim [a] has been replaced with --the-- before "lid part", since the limitations have been previously set forth in the claims, line 4 of the claim [a] has been replaced with --the-- before "locking tab", since the limitations have been previously set forth in the claims, and line 5 of the claim [a] has been replaced with --the-- before "respective catch", since the limitations have been previously set forth in the claims, and [said] has been deleted before "lid".

All of the aforementioned amendments have been made by the Examiner in order to correct antecedent problems and minor informalities and do not affect the scope of the claims.

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2. The following changes to the drawings have been approved by the Examiner and agreed upon by Applicant: Fig. 1 and 2 should be designated as “Prior Art” according to the Applicant’s remarks presented in “Brief Description of the Drawings” (see p. 3 of the specification, subsections [0009] and [0010]). In order to avoid abandonment of the application, Applicant must make these above agreed upon drawing changes.

3. The following is an examiner’s statement of reasons for allowance:

The allowability resides in the overall structure of the device as recited in independent claims 1 and 9, and at least in part, because:

Claim 1 recites: “[A] ceramic substrate formed with opposite first and second face surfaces and opposite end portions, an electrical contact surface formed at each end on the first face surface of the substrate and electrical resistance material disposed on the first face surface between and in electrical connection with the contact surface at each end on the first face surface, the contact surfaces of the ceramic substrate received on a respective contact shelf...a spring clip attached to the housing member for applying contact force through the ceramic substrate”; and,

Claim 9 recites: “[A] ceramic substrate having two opposed ends and having a face surface, an electrically conductive contact disposed on the face surface at each end of the opposed ends and a layer of resistive material disposed on the face surface extending between and in electrically conductive relationship with the electrically conductive contacts, the electrical contacts of the ceramic substrate being received on the shelves in the switch chamber... a spring clip having a force applying portion and opposed sides, the opposed sides clampingly received

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over one of the lid portions with the force applying portion engaging the ceramic substrate biasing the ceramic substrate into electrical engagement with the shelves”.

The aforementioned limitations in combination with all remaining limitations of claims 1 and 9, respectively, are believed to render the claims and all claims dependent therefrom patentable over the art of record.

The US/6,020,807 to Givler and EP/0,866,482 to Stiekel (cited on IDS) are believed to be the closest references to the present invention.

Stiekel disclosed a thermal switch (Fig. 3, 5) comprising a housing member (20) having a bottom wall (20a), a sidewall (20c) extending upwardly from the bottom wall (20a) defining an open end and a switch chamber, the sidewalls (20c) having a free end formed with a laterally, outwardly extending flange (20f) having portions on at least two opposite sides of the open end, a thermostatic switch having a movable contact (24) received in the switch chamber, a gasket (16) received on the flange and having an opening (16a) aligned with the open end of the housing member (20), a lid (12) having first and second spaced apart parts (12d, 12c), each lid part (12d, 12c) having two opposite sides formed with tabs (12e) receivable over flange portions (20f) of the housing (20) and the gasket (16) and being clamped to the flange portions (20f) through the gasket (16), each lid part (12d, 12c) having a face surface received on the gasket covered flange portions (20f) and a recessed contact shelf (12a) disposed within the switch chamber when the lid (12) is disposed on the gasket covered flange (20f), and the first lid part (12a) having a stationary contact portion (26) and the movable contact (24) being movable into and out of electrical engagement with the stationary contact portion (26).

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Givler also disclosed a thermal switch (Fig. 2,4) comprising a housing member (12) having a bottom wall, a sidewall extending upwardly from the bottom wall defining an open end and a switch chamber, the sidewalls having a free end formed with a laterally, outwardly extending flange (all the aforementioned elements are not numbered, but shown on Fig. 2,4) having portions on at least two opposite sides of the open end, a thermostatic switch having a movable contact (25) received in the switch chamber, a gasket (28) received on the flange and having an opening (30, 32) aligned with the open end of the housing member (12), a lid (14) receivable over flange portions of the housing (12) and the gasket (28) and being clamped to the flange portions through the gasket (28) (see Fig. 4), the lid (14) having a face surface received on the gasket covered flange portions and a contact shelf (carrying stationary contact (26)) disposed within the switch chamber when the lid (14) is disposed on the gasket covered flange, the lid (14) having a stationary contact portion (26) and the movable contact (25) being movable into and out of electrical engagement with the stationary contact portion (26).

Neither Givler nor Stiekel disclosed the ceramic substrate and spring clip as recited above and as required by independent claims 1 and 9 of the instant application.

The Examiner has also cited the following pertinent to the present invention references:

US/3430177, 3622930, 4015229, 4086558, 4224591, 4399423, 4646195, 5206622, 5808539, 5936510, 6744345, 6756876, 6801116, D281240, D336072, and JP/ 2005-108585 disclosed various thermally responsive switches comprising housings with sealing means.

None of the cited references either taken alone or in combination is believed to render the present invention unpatentable as claimed.

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4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anatoly Vortman whose telephone number is 571-272-2047. The examiner can normally be reached on Monday-Friday, between 10:00 am and 6:30 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Lynn Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Anatoly Vortman
Primary Examiner
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